Name _____ Class _____ Date _____

Lesson 2-3

Frequency Tables and Line Plots

Lesson Objective	NAEP 2005 Strand: Data Analysis and Probability
To analyze a set of data by finding the range and by making frequency tables and line plots.	Topic: Data Representation Local Standards: _____

Vocabulary

A frequency table is _____

_____

A line plot _____

_____

The range of a data set is _____

Example

1 **Frequency Table** The favorite lunch choices of ten students are: pizza, pizza, chicken, hamburger, chicken, pizza, chicken, pizza, pizza, pizza. Organize the data in a frequency table. Find the mode.

Favorite Lunch		
Lunch	Tally	Freq.
hamburger	|	
pizza		

Make a tally mark for each lunch item chosen.

The number of tally marks in each row is the [ ].

Since the most students selected [ ] as their favorite lunch item, the mode is [ ].

Quick Check

1. The first initials of the names of 15 students are listed below.

A J B K L C K D L S T D V P L

Organize the data in a frequency table. Find the mode.

Initial	A	B	C	D	J	K	L	P	S	T	V
Tally											
Frequency											

The mode is [ ].

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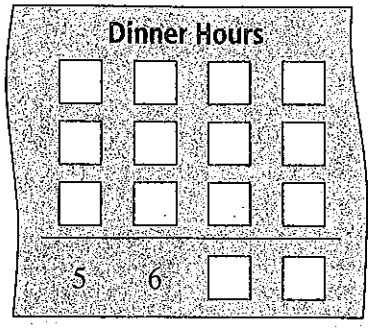
Examples

② Using a Line Plot Make a line plot to display the dinner hour for seven families:

5:00 7:00 6:00 6:00 8:00 7:00 6:00



← Each ✗ represents one family.

← The scale of a graph includes all of the data values.
The scale is ☐ to ☐ in this line plot.

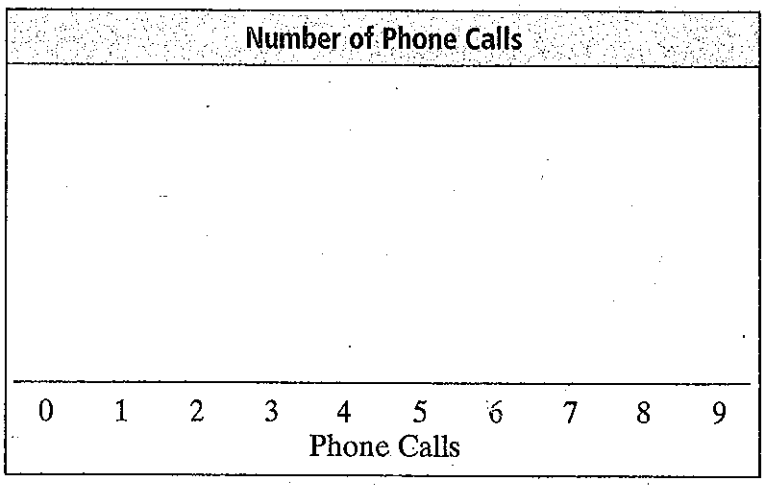
③ Finding the Range Find the range of the data in Example 2.

☐ − 5 = ☐ ← Subtract the least from the greatest value.

The range of dinner times is ☐ hours.

Quick Check

2. Use a line plot to interpret the number of sales calls made each hour: 2, 3, 0, 7, 1, 1, 9, 8, 2, 8, 1, 2, 8, 7, 1, 8, 6, 1.



3. The numbers of pottery items made by students are 36, 21, 9, 34, 36, 10, 4, 35, 30, 7, 5, and 10. Find the range of the data.

Homework Exercises

Show Your Work!	Corrections/Comments/Explanations
(1) The ages for required school attendance in ten states are 6. 7, 6, 5, 7, 6, 8, 6, 5 and 7. Make a **frequency table** of this information. Remember to label each column.	
(2) Make a line plot of the data from Problem 1.	
(3) What is the range of the data from Problem 1? _____ What does the range show?	
(4) The ages of the first ten U.S. presidents when they took office were 57, 61, 57, 57, 58, 57, 61, 54, 68 and 51. What is the range for this set of data?	

(5) ***Challenge*** Make two sets of data with the **same range** but **different means.** Use between 4 to 6 numbers

Data Set 1	Data Set 2
Mean:	Mean:
Range:	Range:

(6) ***Review (1-9)***

$0.649 \div 5.9$

(7) ***Review (1-9)***

$255.5 \div 7$